



THE AGA KHAN UNIVERSITY

CENTRE OF EXCELLENCE  
FOR TRAUMA AND EMERGENCIES



Volume 4 | January 2026

# CETE NEWSLETTER

Centre of Excellence for Trauma & Emergencies Aga Khan University



**RESEARCH**



**TRAINING**



**POLICY ADVOCACY**



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# MESSAGE FROM THE FOUNDING DIRECTOR

**Welcome to Volume 4 of the CETE Newsletter with best wishes for a very happy New Year.**

Over the past year, the Centre has experienced remarkable growth, delivering impactful work that continues to save lives and improve emergency care across Pakistan and beyond. A major focus of our efforts has been disaster preparedness and response, undertaken in close collaboration with the Aga Khan Development Network (AKDN) to address the growing challenges posed by climate change and natural disasters.

We trained more than 2,000 Lady Health Workers and 650 healthcare providers in some of the most disaster-prone regions of Sindh to respond effectively to emergencies within their communities. In parallel, we delivered a comprehensive Disaster Preparedness and Response Leadership Course for participants from Pakistan, Tanzania, Tajikistan, and Afghanistan, in collaboration with international faculty and global experts.



To address the burden of out-of-hospital cardiac arrest, we reached out to over five million students in Sindh and Azad Jammu & Kashmir through Pakistan Lifesavers content integrated into textbooks, while training 500,000 lifesavers in hands-on CPR and bleeding control. We also launched Pakistan's first locally developed, context-specific Basic Life Support (BLS) programme, designed to equip healthcare professionals with essential skills to manage cardiac, respiratory, and trauma emergencies.

Alongside these efforts, we concluded the second edition of the Emergency Research Insights Course, initiated an Emergency Medicine Training Programme for physicians in East Africa, and scaled up our Medical First Responder Course, including training AKDN staff to further train lay responders. Our work on climate change has expanded to the policy level, supporting some of Sindh's most heat-prone districts in developing district-led heat management plans in collaboration with local administrations.

Our research portfolio continues to grow, with increasing focus on artificial intelligence, data systems, and big data to translate evidence into action. Our teams are advancing work on hypertension, equitable trauma and injury care, pediatric ambulance services, access to care in conflict- and climate-affected regions, and healthcare worker preparedness during emergencies. Looking ahead, we are proud to host the Centre's first-ever Chain of Survival Conference on 26-27 January 2026, bringing together global experts to reimagine lifesaving systems for the most vulnerable. We will also welcome the Equi-Injury: NIHR Global Health Group on Equitable Access to Quality Care for Injured People for their annual meeting in Pakistan.

None of this would be possible without our extraordinary team—the real changemakers—along with the leadership of Aga Khan University, our partners and collaborators across Pakistan and beyond, and our inspiring network of volunteers.

**Junaid Razzak, MBBS PhD FACEP**

Director, Centre of Excellence for Trauma and Emergencies, Aga Khan University  
Vice-Chair Research, Department of Emergency Medicine, Weill Cornell Medicine



# TRIBUTE TO DR. ADIL HAIDER: A LEADER, MENTOR, AND VISIONARY



As Dean Adil Haider's tenure at the Aga Khan University Medical College comes to a close, CETE bids farewell to a remarkable leader who has been a constant source of guidance, encouragement, and belief in our mission.

From the earliest days of CETE, when we were just a small team with big dreams, Dean Adil believed in us. He trusted our vision, championed our work, and stood by us as we grew. His expertise as a trauma surgeon brought depth to our trauma registry work, and his belief in the Pakistan Life Savers Programme, as well as all of our initiatives, strengthened our efforts at every step. Whenever CETE needed support, he was always just an email or a conversation away.

Beyond his mentorship and advocacy, we will deeply miss his larger-than-life presence, his infectious energy, and the spirit of possibility he brought to every conversation.

Thank you, Dean Adil. Your impact is lasting, and your legacy lives on in every life we strive to save.





# RESEARCH UPDATES



# RESEARCH UPDATES

## Equi Injury: Equitable Access to Quality Health Care for Injured People in LMICs

Injuries cause disproportionate death, disability, and economic loss in LMICs, particularly among young, economically productive populations, with nearly half of avoidable deaths linked to delays in accessing quality care. This multi-country research partnership with Ghana, South Africa, Rwanda, and Pakistan aims to reduce preventable injury-related death and disability by addressing delays and improving care quality.

The project has completed extensive stakeholder engagement, data collection, and consensus-building to strengthen equitable injury care. This included developing stakeholder-informed strategies to embed research into policy, completing large-scale hospital patient data collection, timeliness assessments, provider surveys, facility readiness evaluations, and photovoice discussions to identify priority quality outcomes. Injury care pathway modelling is currently underway, led by the University of Birmingham. In parallel, priority solutions were identified and cross-country learning synthesized, with findings now informing future interventions.

### Hospital Patient Data Collection (demographics, clinical outcomes, and patient-centered care):

Aga Khan University <b>773 Participants</b>	Jinnah Postgraduate Medical Centre <b>929 Participants</b>	Syed Abdullah Shah Institute of Medical Sciences Sehwan <b>668 Participants</b>	Liaquat University Hospital Hyderabad & DHQ Civil Hospital Thatta <b>559 Participants</b>
Urban Sites		Rural Sites	



The Equi Injury team from the Centre attended the annual Equi-Injury NIHR Global Health Group Meeting in Accra, where they presented key findings across multiple work packages.

Discussions highlighted consensus priority solutions and barriers to equitable injury care, the importance of community engagement, a strengthened health workforce, and improved policy and governance in Pakistan, as well as patient- and stakeholder-identified quality priorities. The team also shared analyses of hospitalized patient outcomes, including the relationship between injury severity and mortality and higher mortality among females with severe injuries. The meeting concluded with the announcement that the next Equi team meeting and dissemination event will be held in Karachi in January 2026.

## RESEARCH UPDATES

### FEAMER: Improving Pediatric Care via Ambulance M-Health

The Feasibility and Efficacy of Ambulance-Based M-Health for Pediatric Emergencies (FEAMER) Trial is breaking new ground in Pakistan as the first initiative to deliver ambulance-based mobile health for critically ill pediatric patients.

This NICHD-funded study has completed its R21 phase and is now approved to begin the R33 phase this year. Over the past year, qualitative studies and a pilot phase confirmed that the intervention is both feasible and acceptable to stakeholders.

The team also explored how to ethically obtain informed consent in high-stress, time-sensitive situations, helping shape a practical framework for such urgent scenarios.

The trial now moves into a full-scale RCT, enrolling **600 critically ill children** and equipping **35 ambulances** with a complete telemedicine setup. EMTs across Karachi, in partnership with Sindh Integrated Emergency Health Services (SIEHS), will also receive training in ethics, advanced pediatric emergency protocols, and Pediatric Early Warning Signs (PEWS).



### Multi-Hospital Trauma Registry

CETE is running Pakistan's largest Trauma Registry across four trauma centres:

Aga Khan University

Jinnah Postgraduate  
Medical Centre

Syed Abdullah Shah  
Institute of Medical  
Sciences Sehwan

Civil Hospital Hyderabad

The registry aims to assess equitable access to quality healthcare for injured people. To date, **13,381 patients** were eligible, of whom **12,223** have been enrolled, reflecting a **91% enrollment rate**, with numbers continuing to grow. Preliminary findings show that access and quality are inseparable, with barriers at each stage of delay overlapping and reinforcing one another.

CETE's trauma registry plays a pivotal role in identifying trends, analyzing patient outcomes, and understanding the impact of clinical factors and management protocols on trauma care. Current efforts focus on improving data collection, optimizing existing variables, simplifying follow-up outcomes, and publishing research that shifts emphasis from health economics to deeper clinical insights.



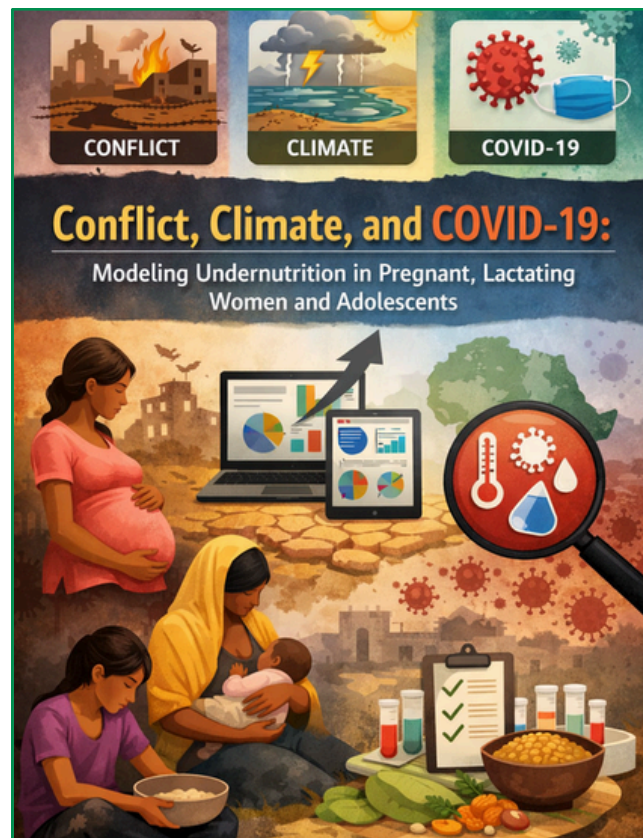
# RESEARCH UPDATES

## Conflict, Climate, and COVID-19: Modeling Undernutrition in Pregnant, Lactating Women and Adolescents

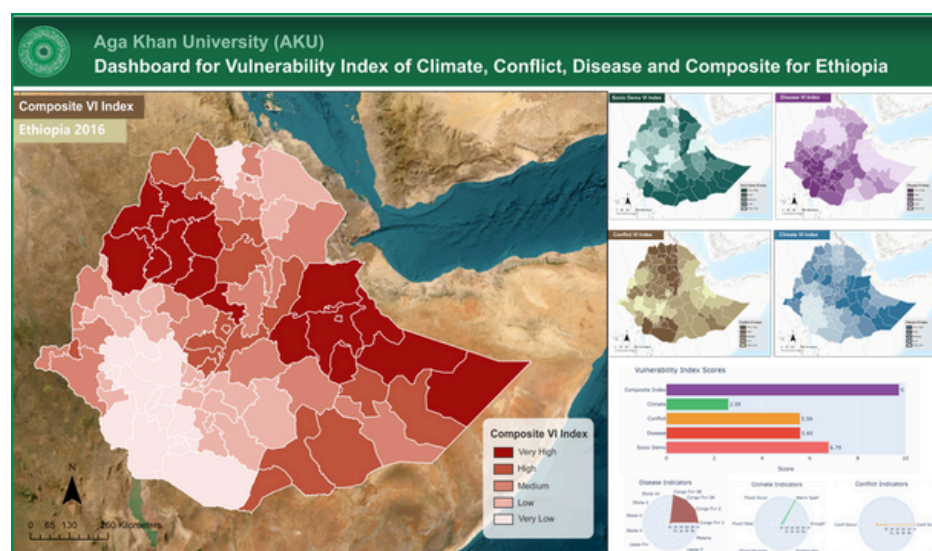
Since its launch in October 2023, the Conflict, Climate and Covid-19 (3C) project has advanced a data-driven framework to quantify vulnerability to undernutrition among pregnant and lactating women (PLW) and adolescent girls in fragile and conflict-affected settings.

The model was initially developed and applied in Ethiopia, Burkina Faso, Cameroon, and the Democratic Republic of Congo (DRC), selected based on the availability of longitudinal Demographic and Health Survey (DHS) data and high exposure to conflict, climate hazards, and disease outbreaks.

A key milestone is the successful validation of the framework in Pakistan using both Demographic and Health Survey (DHS) data and the National Nutrition Survey (NNS), demonstrating its adaptability across diverse contexts and strengthening its relevance for national-level decision-making.



In parallel, Version 1 of an interactive vulnerability dashboard has been developed for selected countries, enabling users to explore sub-national vulnerability patterns and understand how socio-demographic, climate, conflict, and disease-related factors jointly drive composite risk scores. Looking ahead, the framework is well positioned for replication across additional countries and expansion beyond nutrition to broader Reproductive, Maternal, Neonatal, Child, and Adolescent Health (RMNCAH) outcomes, supporting targeted, evidence-based policy and programmatic interventions.



Version 1 of an interactive vulnerability dashboard has been developed for selected countries. The dashboard will enable users to explore sub-national vulnerability patterns and understand how socio-demographic, climate, conflict, and disease-related factors jointly drive composite risk scores.

# RESEARCH UPDATES

## CONNECT-HTN: Advancing Hypertension Care in South Asia

The CONNECT-HTN project, led by CETE addresses the global hypertension burden, which affects 1 in 4 adults, particularly in low- and middle-income countries (LMICs). South Asia faces high rates of hypertension, with urban living challenges contributing to poor blood pressure control. Previous studies in Karachi highlighted missed opportunities to improve outcomes for severe hypertension patients through timely identification, linkage to primary care, and lifestyle interventions.



### **Project Approach:**

CONNECT-HTN implements a multimodal intervention combining community health workers (CHWs) and telehealth to connect patients with severe hypertension to primary care resources and evidence-based lifestyle support. The study measures meaningful clinical outcomes, including Major Adverse Cardiac Events (MACE), over 36 months, contributing to Sustainable Development Goals (SDGs) and offering a potential model for LMICs.

### **Year 2 Progress (R33 Phase):**

Since the Notice of Award in September 2025, the CONNECT-HTN project has developed trial protocols, procedures, training materials, and REDCap forms, secured IRB approvals from Weill Cornell Medicine and Aga Khan University, established a Data Safety and Monitoring Committee, finalized training for Tele-Community Health Workers and Research Associates, and completed contracts to initiate site approvals and preparations.

### **Dissemination of Pilot Phase Findings:**

Pilot phase findings were widely disseminated through presentations to the Provincial Minister of Health Sindh, Weill Cornell Medicine research teams, and the Dean of Aga Khan University. The Karachi Hypertension Study Group was established, and results were shared at the Center for Virtual Care Symposium. The inaugural Karachi Hypertension Group meeting at the Emergency Operations Center, Government of Sindh, brought together CETE, provincial health officials, and academic leaders to discuss actionable strategies for hypertension care.



### Emergency Medical Services (EMS) Data System

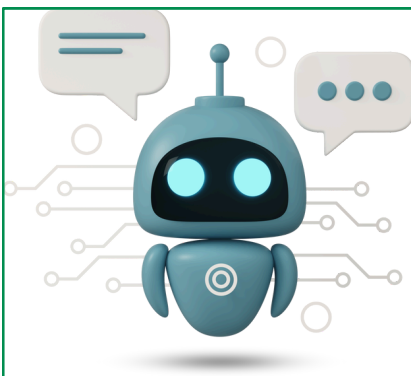
In a pursuit to improve Pakistan's prehospital emergency medical services (EMS), CETE has established strategic collaborations and MOUs with leading EMS providers, including the Punjab Emergency Service Department, Rescue 1122, and Sindh Integrated Emergency and Health Services (SIEHS). These partnerships enable CETE to support these agencies through capacity building, training, and evaluations while gaining access to their EMS data for research and service improvement.



We have compiled **3.5 years of EMS data**, covering **8.4 million activations** across diverse demographics. Using natural language processing (NLP), we interpret free-text EMS records with over **80% accuracy**, and optimization is ongoing to enhance performance. Our team has also partnered with SIEHS for data from July 2024 onward, which is currently being cleaned for research publications.

By linking EMS data with climate and environmental information, we have identified how deviations from optimal temperatures in Punjab influence EMS activations. Ongoing efforts focus on refining data collection, optimizing variables, simplifying follow-up outcomes, and generating deeper clinical insights.

### CASPAR: AI-Powered Knowledge Chatbot for CETE



CASPAR is a non-funded initiative aimed at developing an AI-powered knowledge-based chatbot to support CETE researchers and staff by providing fast, accurate, and reliable access to Aga Khan University (AKU) institutional information. The chatbot is trained on internally available and verified documents, including Research Office guidelines, Ethics Review Committee (ERC) documents, and Human Resource (HR) policies hosted on the AKU intranet.

The main objective of CASPAR is to simplify and speed up information retrieval by allowing users to ask questions in natural language and receive precise, context-relevant answers within seconds, reducing dependency on manual searches and staff responses. Unlike general AI tools, CASPAR is designed to operate within a locally controlled environment to minimize data leakage risks, ensure consistency, and protect institutional integrity.

## RESEARCH UPDATES

### New Publications (February – October 2025)

Emergency Health Care Workers' Preparedness and Willingness to Respond to a Dirty Bomb-related Disaster in Pakistan

Nargis Asad, Badar Afzal, Ume-e-Aiman Chhipa, Simran Motwani, Junaid Razzak, et al.  
(Sep 2025)

Does Time Matter? Impact of Residency Start Month on EGS Outcome in Pakistan

Komal Abdul Rahim, Adil Haider, Kantesh Kumar, et al. (Aug 2025)

Epidemiological characteristics of elderly population receiving pre-hospital emergency care after road traffic injuries in Punjab, Pakistan

Komal Abdul Rahim, Adil Haider, Kantesh Kumar, et al. (Aug 2025)

The modification of risk assessment ranking when considering the female population and children in the INFORM risk index for selected countries

Ume e Aiman Chhipa, Kantesh Kumar, Junaid A. Razzak, Yasir Shafiq, et al. (Jul 2025)

Navigating challenges in access to antenatal and intrapartum care: Afghan refugee women's experiences amidst the COVID-19 pandemic in Pakistan

Yasir Shafiq, et al. (June 2025)

Diagnostic Biomarkers for Heat Stroke and Heat Exhaustion: A Scoping Review

M. Bazil Musharraf, Junaid A. Razzak et al. (June 2025)

# RESEARCH UPDATES

## New Publications (February – October 2025)

Identifying those at risk: predicting patient factors associated with worse EGS outcomes

Komal Abdul Rahim, Asma Altaf Hussain Merchant, Adil Haider, et al. (May 2025)

When Is Old NOT Gold? Identifying Global Age Risk Surgical Thresholds to Improve Outcomes

Komal Abdul Rahim, Adil Haider, Kantesh Kumar, et al. (Aug 2025)

Bimodal, But Not the Same: Persistent Late Peaks in Trauma Mortality

Komal Abdul Rahim, Tanweer Ahmed, Huba Atiq, Adil Haider, Sheza Hassan, Kantesh Kumar, Asma Merchant, Bazil Musharraf, Junaid Razzak, Natasha Shaukat, Sijal Sheikh (Apr 2025)

The Willingness of Health Care Workers to Respond to a Pandemic in an LMIC Setting: Implications for Public Health Emergency Preparedness

Nargis Asad, Badar Afzal, Daniel J. Barnett, Ume-e-Aiman Chhipa, Bee-Ah Kang, Junaid Razzak, et al. (Mar 2025)

Health system governance for injury care in low- and middle-income countries: a survey of policymakers and policy implementors

Komal Abdul Rahim, Tariq Ahmed Jakhro, Zabin Wajid Ali, Huba Atiq, Zaheer Babar Chand, Mehreen Mustafa, Junaid Razzak, Fazila Sahibjan, et al. (Feb 2025)

The effect of prenatal balanced energy and protein supplementation on gestational weight gain: An individual participant data meta-analysis in low- and middle-income countries

Yasir Shafiq, et al. (Feb 2025)

Explore the complete papers here: [www.aku.edu/cete/Pages/publications.aspx](http://www.aku.edu/cete/Pages/publications.aspx)

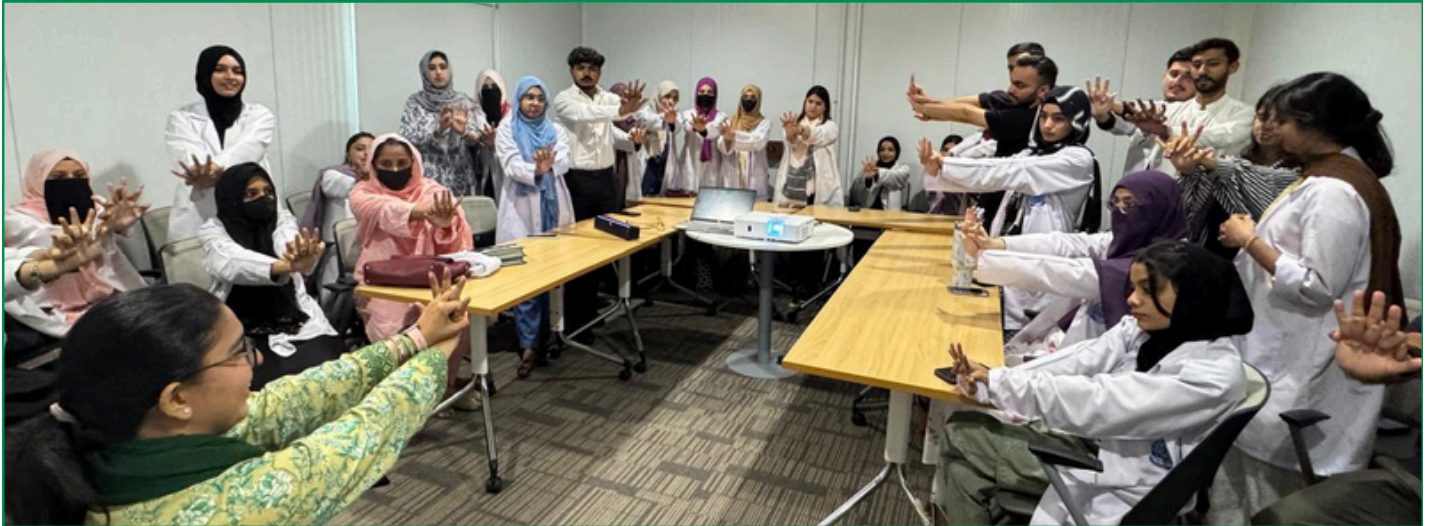


**EDUCATION & TRAINING**



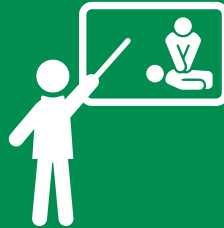
# EDUCATION & TRAINING

## Pakistan Life Savers Programme



**500,000+**

Pakistan Life Savers trained in CPR & Bleeding Control



**5000+**

Trainers across all provinces of Pakistan



**5 MILLION +**

Students exposed to lifesaving skills of CPR & Bleeding Control via Textbooks in Sindh and Azad Jammu & Kashmir



# EDUCATION & TRAINING

## Pakistan Life Savers Programme

### Lifesaving Skills Become Part of School and University Education in AJK

PLSP continues to advance its vision of making lifesaving skills a part of everyday learning, with two major milestones in Azad Jammu & Kashmir.

The University of AJK has made CPR and bleeding control training mandatory for all 4th semester students under the Civics and Community Engagement course, while the AJK Textbook Board has integrated these lifesaving skills into the school science curriculum.

Special appreciation goes to Dr. Sohail Raja, PLSP's focal person in AJK, for his leadership and dedicated efforts in making this progress possible.



## PLSP Changemakers Talk Series

**PLSP CHANGEMAKERS  
TALK SERIES EP. 1**

PAKISTAN  
LIFE SAVERS  
PROGRAMME  
Join hands, save lives



“Pakistan is one of the only low-resource countries in the world to have a national strategy for cardiac arrest survival and lifesaving. In the world we live in today, what we need is not more smart people, but more bridge builders – and that is exactly what you, the Pakistan Life Savers, are.”

**Ann Doll**  
Executive Director, Resuscitation Academy  
Member, PLSP International Advisory Board

In July, we launched the PLSP Changemakers Talk Series.

The first episode featured Ann Doll from the Resuscitation Academy (US), a global leader in CPR and lifesaving systems and a member of the PLSP Advisory Board.

This series brings together thought leaders and changemakers from Pakistan and around the world to share stories that inspire action, purpose, and impact in lifesaving.

The series also featured PLSP Master Trainer Zainab Abu Talib, who shared her journey, what inspires her, what keeps her going, and what PLSP means to her, encouraging others to join the movement.



# EDUCATION & TRAINING

## Pakistan Life Savers Programme

### Giving Back Through CPR: Zainab's Journey with Purpose

**Zainab Abu Talib**, a 24-year-old Doctor of Physical Therapy student, has been part of PLSP since 2022. She began as a Life Saver, advanced to Master Trainer, and now serves as an Ambassador.

In this role, she has conducted CPR training in universities, hospitals, community centers, madrassas, and at Rescue training headquarters. She has also instructed in PLSP's Leadership in Resuscitation Course at multiple institutes.

To mark her 24th birthday during Ramzan, Zainab organized a Walk-In CPR Drive at Ziauddin College of Physical Therapy. Students from across the university practiced on feedback manikins, with scores recorded in real time. Those achieving 95 percent or higher were recognized with small gifts that Zainab personally sponsored as her way of giving back.



### PLSP Volunteer Network Expands in GB and Chitral

In GB, Quratulain Rahim, a fourth-year BSN student at AKU and PLSP Master Trainer, partnered with the Aga Khan Rural Support Programme to train over 500 community members in CPR and bleeding control, supported by Erum Shafi, Anisa Rehman, Shakir Ali, Zakir Ali, Asar Rahim, and AKRSP Project Manager Farida Naz.

In Chitral, Master Trainers independently trained more than 200 Life Savers and 50 new Master Trainers across Meragram No. 2, Chitral City, Arkari Ower, Charun, and Junali Koch Booni. Despite limited resources and no multimedia tools, trainers including Taskin Zafar, Tehreem Jalal, Tajmina Gul, Tanvir Alam, Sidra Nazir, and Sami Uddin successfully equipped participants with essential CPR and bleeding control skills.

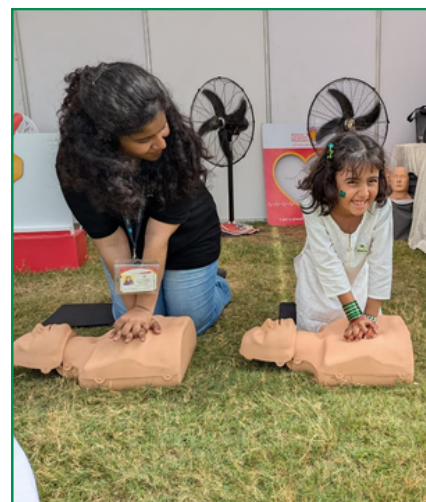




# EDUCATION & TRAINING

## Pakistan Life Savers Programme

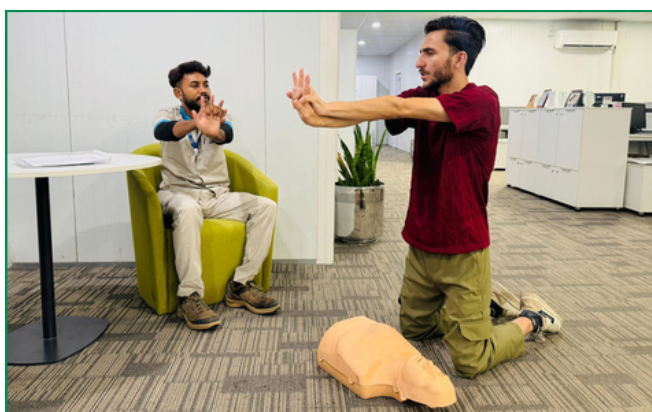
### Independence Day



### World Emergency Medicine Day



### Labour Day



### Mothers' Day





# EDUCATION & TRAINING

## World Restart A Heart Week

**October 13<sup>th</sup> - 18<sup>th</sup>, 2025**

The Secretariat celebrated World Restart a Heart Week with a series of engaging events. World Restart a Heart Day, observed globally on 16 October, was marked with activities including a CPR relay race, a DIY CPR manikin-making competition, an inter-university CPR challenge, and a 3-minute walk-in CPR practice event.

On the same day, over 200 AKU staff, faculty, and students learned how to save a life through PLSP Skills Stations placed at various locations across the AKU campus—all within a single day.





# EDUCATION & TRAINING

## World Restart A Heart Week

### One Nation, One Training

As in previous years, we proudly observed World Restart a Heart Day with a nationwide effort, delivering simultaneous CPR and bleeding control sessions across all provinces, carried out by our PLSP regional partners on the same day.

Punjab Emergency Service Dept 1122



Sindh Emergency Rescue Service



Khyber Medical University



Azad Jammu & Kashmir



Tabba Heart Institute



Dow University of Health Sciences



National Youth & Development Society - Balochistan



National Institute of Cardiovascular Diseases



Sindh Integrated Emergency & Health Services



First Response Initiative of Pakistan





## EDUCATION & TRAINING

### PLSP Leadership in Resuscitation Course



In October, we hosted the **14th PLSP-RAF Leadership in Resuscitation Course**. We are deeply grateful to Dr. Karim Damji, Honourable Dean of the Medical College at Aga Khan University, for joining as the keynote speaker on the opening day of the course, held in collaboration with the Resuscitation Academy, Seattle.

This edition trained 18 PLSP Master Trainers from five leading PLSP partner institutions through an intensive Train-the-Trainer programme focused on High-Performance CPR (HP-CPR) and resuscitation leadership. The programme has already equipped more than **300 participants** to deliver resuscitation training across their communities.

"I just want to say that you all (Pakistan Life Savers) are superheroes, and the ripple effect of your work — training others and saving lives — is truly phenomenal. I hope you all continue on this very important journey. I'm really happy to be here."

-Professor Karim Damji



# EDUCATION & TRAINING

## Pakistan Life Savers Programme

We are pleased to welcome our **second cohort of PLSP ambassadors**, dedicated changemakers who have gone above and beyond their duties, tirelessly training community members and actively advocating for CPR education across their regions.



**Khushal Khan**  
KPK



**Muhammad Aslam**  
Balochistan



**Qayyum Baig**  
Sindh



**Ali Rajani**  
Sindh



**Asima Shah**  
Gilgit Baltistan/Sindh



**Malik Arshad Hussain**  
Punjab



**Tamseel Tanwir Awan**  
Sindh



**Aiman Ali**  
KPK



**Nabiha Munawar**  
Sindh



**Shahryar Soomro**  
Sindh



**Usama Hameed**  
KPK



**Hina Habib Gillani**  
Sindh



**Dr. Subhani Fatima**  
Sindh



**Shafaq Sultan**  
Sindh



# EDUCATION & TRAINING

## Pakistan Basic Life Support

Developed by Centre of Excellence for Trauma and Emergencies at the Aga Khan University, the Pakistan Basic Life Support (PBLS) course is the country's first locally developed, context-specific BLS training. It is designed to equip healthcare professionals with the critical skills needed to respond effectively to cardiac, respiratory, and trauma emergencies in Pakistan. **In the first few cohorts, 50+ healthcare workers have been trained.**



### Why PBLS?

Pakistan faces critically low survival rates from sudden cardiac arrest, trauma, choking and severe bleeding, both inside and outside hospitals. Existing international BLS trainings are costly, hard to access and largely focused on coronary artery disease, which does not reflect Pakistan's broader emergency landscape.

PBLS has been designed to fill this gap. It equips healthcare professionals to respond to high-burden emergencies such as road traffic injuries, pediatric incidents, drowning and flood-related trauma. With an emphasis on timely and effective action, PBLS empowers providers to deliver lifesaving care that is relevant to Pakistan's healthcare realities.



### Course Components



High-Performance  
CPR (Infant, Child  
& Adult)



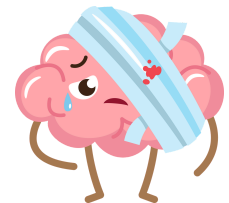
Choking (Infant,  
Child & Adult)



AED Use



Bleeding Control



Trauma &  
Traumatic Brain  
Injuries (Optional)



# EDUCATION & TRAINING

## Medical First Responder Course



As part of its commitment to strengthening community-based emergency response in Pakistan, CETE offers the Medical First Responder (MFR) Course, training non-medical personnel in essential skills for managing medical emergencies and crises.

To date, three cohorts have trained over **80 participants** from the Aga Khan Agency for Habitat (AKAH) Pakistan. The first two were held in Gilgit (December 2022 and June 2025), and the most recent in Karachi (July 2025).

**Day One – Resuscitation Day:** Covers Hands-Only CPR, Stop the Bleed, EMS awareness, stress management, ethics, infection precautions, and practical skills in patient assessment, choking response, and assembling a basic first aid kit.

**Day Two – Trauma Day:** Focuses on trauma assessment, hemorrhage control, wound care, and managing injuries to major body regions. Participants also assemble a complete MFR kit.

**Day Three – Medical Emergencies Day:** Addresses respiratory, cardiovascular, neurological, allergic, and abdominal emergencies, non-traumatic shock, pain management, and preparation of an emergency car kit.

**Day Four – Disaster Day:** Includes heat and cold illnesses, burns, poisoning, drowning, foreign bodies, mass casualty planning, emergency rescue techniques, and building a 72-hour survival kit.

**Day Five – Special Circumstances:** Covers childbirth and newborn care. The course concludes with feedback, certificate distribution, and reflections on the role of MFRs in strengthening community emergency readiness.





# EDUCATION & TRAINING

## Disaster Preparedness and Response Leadership Course

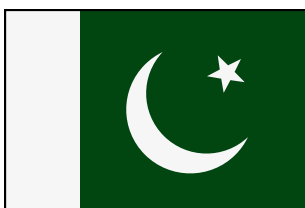


CETE, in collaboration with the Aga Khan Agency for Habitat, offered a one-year hybrid course aimed at strengthening capacity in disaster preparedness and response, with **19 participants** from four countries taking part. The course covered a range of topics and components, including:

- Learn to identify, analyze and respond to different types of disasters
- Co-create and implement robust emergency preparedness plan
- Enhanced decision-making and communication skills in high-pressure situations
- Foster resilience with a strong foundation in decision-making during disasters

Distinguished and internationally recognized disaster experts and instructors have been engaged from countries including, not limited to, **USA, Egypt, Italy, UK, Romania**, and the **Middle East**.

### Participating Countries



Pakistan



Tajikistan



Tanzania



Afghanistan

### Participating Institutes



Aga Khan Agency for Habitat

## EDUCATION & TRAINING

### All Lady Health Workers in Two Key Sindh Districts Equipped as Disaster First Responders



The Disaster First Responder Course equips Lady Health Workers in two of Sindh's most disaster-prone districts, **Sanghar** and **Shaheed Benazirabad**, with essential disaster response skills, strengthening their role as the critical link between communities and the formal health system. A tailored, region-specific curriculum in the local language focuses on disaster mitigation, community evacuation and basic treatment.



Among the 1,019 LHWs trained from Shaheed Benazirabad, **15%** were evaluated, and the majority reported having an updated village disaster response plan. Moreover, **All Lady Health Workers in Shaheed Benazirabad have now been trained as disaster first responders.**



**2000+**

Lady Health Workers

**20**

Master Trainers

trained in Sanghar and Shaheed Benazirabad





# EDUCATION & TRAINING

## Emergency Medicine Research Insights Course Cohort II

The Emergency Medicine Research Insights Course (EMRIC), led by the Centre of Excellence for Trauma and Emergencies at Aga Khan University in partnership with Brown University and Weill Cornell Medicine, is a collaborative initiative designed to advance research education and its practical application in patient care, particularly in the fields of injury, trauma, and medical emergencies.

The course covers diverse modules including research frameworks, clinical conceptualization, study design, epidemiological methods, biostatistics, and research dissemination. A key feature is its longitudinal research component, which fosters mentor-mentee relationships and guides participants through the process of conducting studies and developing high-quality manuscripts.

The inaugural cohort ran from May–December 2023, training participants from 10 major healthcare institutions nationwide, with 19 participants earning certification. Building on this success, the second cohort of EMRIC, comprising **21 participants**, commenced in September 2025, continuing to strengthen emergency medicine research capacity and its impact on patient care.

## CETE Leads New Emergency Medicine Training Initiative in East Africa

The screenshot shows a Zoom meeting interface. The top right corner displays the Zoom logo and the text 'Sign in', 'Recording', and 'View'. The main area shows a grid of participants. On the right side, there is a banner for 'THE AGA KHAN UNIVERSITY CENTRE OF EXCELLENCE FOR TRAUMA AND EMERGENCIES' with the AKU logo and 'Aga Khan Health Services'. Below this, it says 'Offered by AKU CETE & AKHS (East Africa)'. At the bottom, a green banner reads 'Emergency Medicine Training Programme Certification Course For East Africa' with the flags of Tanzania and Kenya.

The Centre has launched the Emergency Medicine Training Programme – Certification Course for East Africa, led by the AKU Centre of Excellence for Trauma and Emergencies in collaboration with the AKU Department of Emergency Medicine, the AKU Centre for Innovation in Medical Education (Pakistan), and Aga Khan Health Service, East Africa.

This six-month blended programme is designed to strengthen the skills of frontline emergency care providers through virtual learning, tele-simulation, and tele-mentorship. The initiative aims to enhance emergency care delivery, improve clinical outcomes, and contribute to building a more integrated and resilient emergency care system across East Africa.

# EDUCATION & TRAINING

## CETE Global Lecture Series

The Centre hosted the 8th edition of the CETE Global Lecture Series with Dr. Siraj Amanullah where he delivered an insightful session on Using Healthcare Research to Improve Patient Care.

With over 50 participants joining both in person and online, Dr. Amanullah covered crucial topics, including how to drive research questions from actual patient needs, the impact of research on improving care processes, effective literature searches, how to go from a topic of interest to a research question, and much more!



## Third Party Evaluation of Emergency Medical Technicians (EMTs)



CETE team evaluated **218 Emergency Medical Technicians (EMTs)** from Punjab and Gilgit-Baltistan at the Punjab Emergency Services Academy Rescue 1122 Lahore. The evaluation covered key skills including patient assessment, bleeding control, chest pain, trauma assessment, cardiac arrest, stroke, and more. The process included both written theory and practical hands-on evaluation.

These EMTs are crucial first responders in times of medical emergencies across Punjab and GB. Since July 2022, the Centre has had the privilege of serving as a third-party evaluator for Rescue 1122's EMTs, having evaluated over **1,500 EMTs** so far!





# COMMUNITY & POLICY IMPACT



## COMMUNITY & POLICY IMPACT

### CETE Leads City Heat Action Planning with PDMA Sindh



In a significant move to strengthen preparedness for rising temperatures, CETE in collaboration with the Provincial Disaster Management Authority (PDMA) Sindh, hosted a City Heat Action Plan Consultative Meeting on Friday, June 20, 2025.

The event marked a milestone in the HEAT (Heat Emergency Awareness and Treatment) project, funded by Elrha (Enhancing Learning and Research for Humanitarian Assistance), a UK-based humanitarian funding body. It brought together over 20 senior government officials, including Assistant Commissioners, Additional Deputy Commissioners, and District Health Officers from five of Sindh's most heat-prone cities: **Hyderabad, Dadu, Larkano, Mirpurkhas, and Naushero Feroze.**



Over the past year, CETE and PDMA Sindh have supported local authorities in developing tailored Heat Action Plans focused on early warning systems, public awareness, emergency health response, and interdepartmental coordination. The initiative showcases a replicable, city-led model of climate resilience, empowering local governments with the tools to protect lives amid growing climate extremes.



## COMMUNITY & POLICY IMPACT

### Dr. Razzak Highlights Role of Crisis-Affected Researchers in Nairobi Forum



Earlier this year, Dr. Junaid Razzak joined the Humanitarian Health Research Forum in Nairobi as a panelist on the discussion: "Change Begins Here - The Role of Researchers from Crisis-Affected Countries in Research Impact. Co-hosted by Elrha and African Population and Health Research Center (APHRC), the forum brought together experts from across academic institutions, humanitarian organizations, and global health agencies.

Dr. Junaid and fellow panelists shared insights on how locally led research in crisis settings shapes effective, evidence-informed humanitarian response, and the responsibility of international partners in supporting that impact.

### HEAT Showcased at World Humanitarian Studies Conference

CETE team members, Zaheer Chaand and Kantesh Kumar, presented key findings from our HEAT Project (Heat Emergency Awareness and Treatment) at the Elrha panel on "Building Climate-Resilient Health Systems in Humanitarian Crises: Examples from Research and Practice" during the 8th World Conference on Humanitarian Studies, held in Istanbul from 15-17 October 2025.

The conference was hosted by Marmara University, Turkish Red Crescent, Global Disaster Preparedness Center (GDPC), and the International Humanitarian Studies Association (IHSA).





**BEYOND THE DESK**

# CETE BEYOND THE DESK

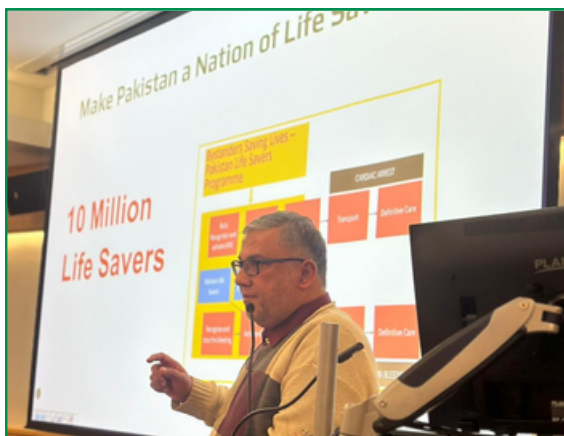
## PLSP Featured at APPNA Gala

Earlier this year at the APPNA (Association of Physicians of Pakistani Descent of North America) Annual Gala in Portland, CT, Dr. Junaid Razzak presented the journey of the Pakistan Life Savers Programme, its progress, nationwide reach and growing impact.

He highlighted how PLSP is equipping youth across Pakistan with life-saving CPR and bleeding control skills, generating strong interest and meaningful discussion on the need for such transformative initiatives in Pakistan.



## Dr. Noor Baig Presents PLSP at Brown University



Dr. Noor Baig, Physician in Lead for the Pakistan Life Savers Programme (PLSP), was invited by the Center for Global Health Equity, Brown University US to deliver a Grand Round for their Global Health Initiative Series.

His talk, titled "Empowering Communities, Saving Lives: Lessons from the Pakistan Life Savers Programme - A Blueprint for Global Action and Collaboration", highlighted the impactful work of PLSP and explored opportunities for collaboration, mutual learning, and growth in global health.

## CETE at Academic Surgical Congress Las Vegas

Dr. Kantesh Kumar and Dr. Sijal Akhtar Shaikh, Research Associates at CETE, presented oral abstracts at the Academic Surgical Congress 2025 in Las Vegas.

Dr. Kumar presented findings on long-term mortality among older trauma patients in Pakistan, highlighting post-discharge risks and the need to strengthen rehabilitation services and long-term follow-up care. Dr. Shaikh presented an epidemiological analysis of patterns and risk factors for violence, emphasizing the use of Emergency Medical Services (EMS) data to identify at-risk individuals and outlining the 3Rs framework for EMS personnel: Recognize signs of assault, Report cases to the Ministry of Human Rights, and Refer survivors to appropriate support services.





## CETE BEYOND THE DESK

### CETE Hosts Renowned Trauma Surgeons Dr. Zara Cooper and Dr. Mayur Narayan

It was an honor to host Dr. Zara Cooper and Dr. Mayur Narayan, renowned trauma surgeons. On special invitation from Dr. Adil Haider, the esteemed guests also visited the CETE office space on Friday. Their visit included a meet-and-greet with the CETE team, followed by a comprehensive progress update on our ongoing projects.

Dr. Cooper, an acute care and trauma surgeon at Brigham and Women's Hospital and a professor at Harvard Medical School, leads initiatives focused on diversity, equity, and inclusion in healthcare. Dr. Narayan, Division Chief of Acute Care Surgery and Chief of Trauma at Rutgers Robert Wood Johnson Medical School, brings extensive experience in trauma and critical care surgery.



### Inaugural Meet-and-Greet with Dean Professor Karim Damji



Team CETE, along with Dr. Junaid Razzak had the pleasure of meeting Professor Karim Damji, the newly appointed Dean of the Medical College at Aga Khan University, for an inaugural introductory session.

During the meeting, the team shared updates on ongoing initiatives and recent achievements across CETE's portfolio. Dr. Damji offered thoughtful appreciation, valuable guidance, and insightful feedback, reinforcing his support for CETE's mission and future priorities.

The session set a positive tone for continued collaboration under the Dean's leadership.

# CETE BEYOND THE DESK

## CETE Team Retreat



Team CETE stepped away from their desks and into a space of connection, reflection, and teamwork at our annual team retreat, held in collaboration with AKU Learning & Development.

With our director Dr. Junaid Razzak also joining in, we took part in fun ice breaker and team building activities that reminded us how much stronger we are when we communicate openly, support and trust one another, and work as one team, both inside and outside the office.

Oh, and we may have built some very ambitious towers using just paper, tape, and straws. **Can you guess which team's tower stood the tallest and the strongest?**





# CETE BEYOND THE DESK

## Team Awards & Achievements

Dr. Junaid Razzak, Director of CETE, has been recognized among the World's Top 2% Scientists List for 2024 by Stanford University.



This annual list is a globally respected benchmark that highlights leading researchers across disciplines. Compiled using standardized citation data from Elsevier's Scopus database, the rankings reflect both the academic impact of a scientist's work and the quality of the peer-reviewed journals in which their research is published.

### Public Health Leadership Award



Junaid A. Razzak, MBBS, PhD  
Weill Cornell Medicine

SAEM

Dr. Junaid Razzak receives the Society for Academic Emergency Medicine (SAEM) Public Health Leadership Award.

SAEM, the largest academic emergency medicine society in the United States, presents this award to individuals who have significantly advanced the field through education, research, advocacy, and professional development.

Komal Rahim (Sr. Instructor Research) honored with the Outstanding Global Research Excellence Award

Komal received the award by Princess Zahra Aga Khan and Dr. Sulaiman Shahabuddin, President of Aga Khan University at the AKU Convocation 2025. She also received an award for great distinction in her Master's in Epidemiology & Biostatistics.



Dr. Noor Baig Wins Prof. Wael AlMahmeed Grant and 2nd Best Oral Abstract at ArRC Dubai

Dr. Noor Baig, Physician In-Lead for the Pakistan Life Savers Programme, received the prestigious Prof. Wael AlMahmeed Travel Grant and secured the 2nd Best Oral Abstract Presentation for his study "Assessment of the Chain of Survival for Out-of-Hospital Cardiac Arrest in a Resource-Limited LMIC Setting" at the 3rd Arab Resuscitation Council Conference in Dubai.



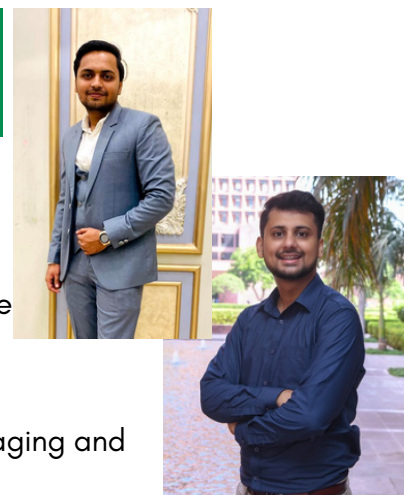
# CETE BEYOND THE DESK

## Team Awards

Rameez Siddiqui & Mubashir Ali secures 4th place globally in Task 1 of the LISA Challenge 2025 supported by the Gates Foundation.

Accurately mapping early brain development is critical, yet most deep learning tools struggle with pediatric low-field MRI because of rapid brain changes and limited gray white contrast. Rameez & Mubashir, developed an automated MRI quality assessment model for the Hyperfine SWOOP 0.064T system by integrating MedSigLIP with EfficientNet\_B0, enabling detection of seven key imaging artifacts.

Their work demonstrates how AI can expand access to reliable neuroimaging and advance early childhood brain health in low-resource settings.



## Welcoming New Faces



**Ramzan Sultan Ali**  
Assistant Manager, Finance  
& Grants



**Maham Umar**  
Assistant Manager,  
Academic Courses



**Muneeb Khan Bozai**  
Dean's Clinical Research  
Fellow



**Mehreen Rafique**  
Data Entry Operator

## Team Promotions



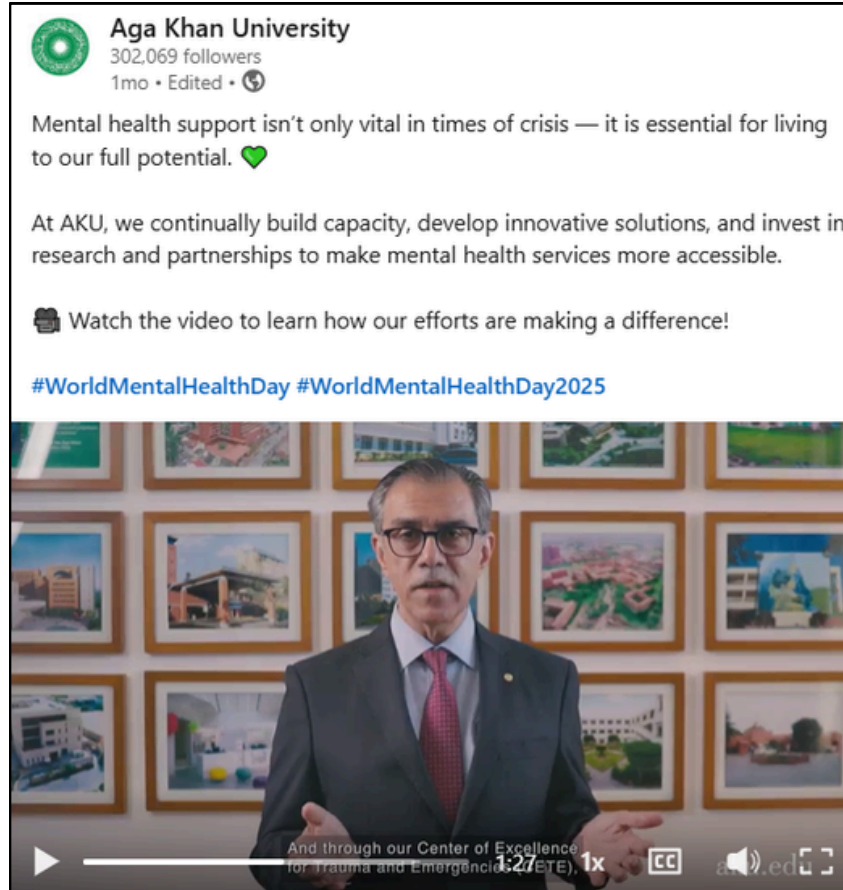
**Tasbeeh Fayaz**  
Assistant Manager,  
Communications & Digital  
Media



**Rameez Siddiqui**  
Specialist (Artificial  
Intelligence)

# CETE BEYOND THE DESK

## Media Spotlight



Honoured to have AKU President Dr. Sulaiman Shahabuddin highlight the critical importance of mental health during public health emergencies and commend CETE's ongoing efforts to build community resilience by equipping Pakistanis with essential life-saving and disaster-response skills.



**Full Video**

OP-ED by CETE Director Dr. Junaid Razzak on how Karachi's deadly road conditions have become a public health crisis, and why urgent action is needed to build a stronger chain of survival for traffic-accident victims.



**Full OP-ED**

### Karachi's roads are killing us

Every year, thousands of people die or become disabled due to road traffic injuries in megacity of Karachi

By Junaid A Razzak | May 21, 2025



A view of traffic on roads during peak hours in Karachi on August 29, 2024. — APP

On a Monday evening in Ramadan, just moments before iftar, Abdul Qayyum, 25, was taking his pregnant wife, Zainab, for a routine check-up. As they waited at the junction of Malir Halt and Shahrah-e-Faisal, a speeding water tanker tore through their lives. In the face of unimaginable pain, Zainab gave birth to their child – an innocent life brought into this world, only to be lost moments later.





# Media Spotlight

# 5,358 hospitals, 675 health centres, 1 heatstroke in Sindh

## Five cities roll out life-saving heat action plans

By M. Waqar Bhatti

With over 5,358 hospital admissions due to heat-related illnesses in 2024 and 675 confirmed cases of heatstroke between April and May this year, Sindh's escalating climate emergency has prompted urgent local action.

Five of the province's most heat-prone cities — Hyderabad, Dadu, Larhanna, Mirpurkhas and Naushero Feroze — have now launched tailored heat action plans to mitigate the growing toll of extreme temperatures on public health.

The initiative comes as an estimated 8.6 million people across 26 districts in Sindh face increased food insecurity triggered by compounding heat and drought risks, while emergency health services struggle with shortages of IV fluids, oxygen, and cooling beds. In 2024 alone, 158 livestock deaths were also reported due to extreme heat.

In response, the Centre of Excellence for Trauma and Emergencies (CETE) at Aga Khan University (AKU), in collaboration with the Provincial Disaster Management Authority (PDMA) Sindh, convened a City Heat Action Plan Consultative Meeting on June 20, 2025.

The session brought together more than 20 senior officials — including assistant commissioners, additional deputy commissioners and district health officers — from the five high-risk cities to finalise structured protocols for heat preparedness.

"Each year, extreme heat pushes our healthcare systems to the brink and endangers lives, especially in vulnerable districts," said Syed Shayan Shah, director operations at the PDMA Sindh. "These heat action plans give our local administrations concrete protocols — when to issue warnings, how to coordinate ambulance services, where to set up heat relief camps. It's a kind of structured, city-level preparedness Sindh urgently needs."

Developed over the past year as part of the HCAT (Heat Emergency Awareness and Treatment) project — funded by UK-based humanitarian agency ECHO — the action plans focus on early warning systems, public awareness, coordinated health response, and inter-agency collaboration. The five cities were selected by PDMA based on their acute vulnerability to recurring extreme heat events.

Millions of people across Sindh, particularly low-income households, elderly individuals, daily wage laborers, and residents of informal settlements, remain at risk due to limited access to cooling systems and frequent power outages.

The region's fragile healthcare infrastructure is consistently stretched thin during heatwaves, with clinics reporting long wait times, admission delays, and depleted supplies, contributing to preventable fatalities.

"We are proud to have supported city administrations in building these action plans," said Zahoor Chaudh, project lead for HCAT at CETE, AKU. "This is a locally driven, evidence-informed effort that puts climate adaptation in the hands of those closest to the communities."

The initiative is being hailed as a scalable model for climate resilience, equipping local governments with the tools they need to protect lives in the face of increasingly frequent and intense heatwaves.

With temperatures set to rise further in the coming years, these heat action plans may prove crucial in averting future health disasters across Sindh.

[illegible]

A screenshot of the Dawn E-Paper website. The top section features the 'DAWN' logo in a large, bold, serif font, with 'E-PAPER | NOVEMBER 20, 2025' underneath it. The main headline is 'Heat action plans for 20 Sindh cities discussed' in a bold, black, sans-serif font. Below the headline, it says 'The Newspaper's Staff Reporter | Published June 22, 2025'. To the right of this text are social media icons for Facebook, X, WhatsApp, and Print. Below the article text, there are two buttons: 'JUMP TO COMMENTS' with a speech bubble icon and 'JOIN OUR WHATSAPP CHANNEL' with a WhatsApp icon. The article text itself is in a black, sans-serif font and discusses a meeting in Karachi organized by CETE and PDMA Sindh to discuss heat action plans for 20 cities. It mentions the meeting was funded by ELRHA, a UK-based humanitarian funding body. The text continues to say that over the past year, CETE and PDMA Sindh have supported local authorities in developing tailored heat action plans focused on early warning systems, public awareness, emergency health response, and interdepartmental coordination.

## CONNECT WITH THE CENTRE



To remain informed of the Centre's ongoing work, please follow us at:

- AKU-CETE Linkedin: [www.linkedin.com/company/centre-of-excellence-for-trauma-and-emergencies](http://www.linkedin.com/company/centre-of-excellence-for-trauma-and-emergencies)
- PLSP Linkedin: [linkedin.com/company/pakistan-life-savers-programme](http://linkedin.com/company/pakistan-life-savers-programme)
- Facebook: [facebook.com/PLSP1](http://facebook.com/PLSP1)
- X: [twitter.com/LifePLSP](http://twitter.com/LifePLSP)
- TikTok: [tiktok.com/@pakistanlifesavers](http://tiktok.com/@pakistanlifesavers)
- Instagram: [instagram.com/pakistanlifesavers](http://instagram.com/pakistanlifesavers)
- Email: [plsp@aku.edu](mailto:plsp@aku.edu)
- Website: [plsp.org.pk](http://plsp.org.pk)
- WhatsApp/Call: 0304-8198122

We value the conversations our work inspires. If this newsletter sparked a thought, an idea, or a suggestion, we would be glad to hear from you at **[coe.te@aku.edu](mailto:coe.te@aku.edu)**

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